

■ Original Article

## Improving the educational level of gynecologic oncology nurses via dedicated workshops

### *Özellikli çalıştaylar ile jinekolojik onkoloji hemşirelerinin öğrenim düzeyinin artırılması*

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#### Abstract

**Aim:** To evaluate the educational level of nurses through a pre and post-test after a gynecologic oncology workshop.

**Material and method:** During the 'Basic and Advanced Nursing Activities in Gynecologic Oncology' workshop, pre and post-test were applied to 33 nurses. The lessons consisted of patient care before and after basic surgical procedures in gynecologic oncology; pelvic and paraaortic lymphadenectomy, radical hysterectomy, radical vulvectomy with inguino-femoral lymphadenectomy, with the additional patient care managements for bowel operations, stoma formation, chemotherapy administration, radiotherapy and brachytherapy applications. Additionally, enhanced recovery after surgery and palliative care options were also discussed. Nurses scaled their pre and post-course knowledge ranging between 1-5 points. The post-course evaluation was held at the end of the first month after the workshop.

**Results:** Attending nurses were from all servicing parts of the hospital irrespective of their previous experience, education level or employment in gynecologic oncology. There was a statistically significant improvement of knowledge in all aspects of the course ( $p < 0.05$ ).

**Conclusion:** There is a need for a structured post-graduate educational program specific for nurses, and the dedicated workshops will achieve this.

**Key words:** Nurse; education; gynecologic oncology; workshop; surgery

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## Öz

**Amaç:** Jinekolojik onkoloji çalıştay sonrası hemşirelerin öğrenim seviyelerinin ön ve son-test ile değerlendirilmesi.

**Gereç ve Yöntem:** 'Jinekolojik Onkolojide Temel ve İleri Hemşirelik Uygulamaları' çalıştay sonrası toplamda 33 hemşireye ön ve son-test uygulandı. Dersler; jinekolojik onkolojide pelvik ve paraaortik lenfadenektomi, radikal histerektomi, radikal vulvektomi ile inguinofemoral lenfadenektomi gibi temel cerrahi prosedürler öncesi ve sonrası hasta bakımı; ve barsak operasyonları, stoma oluşturulması, kemoterapi, radyoterapi ve brakiterapi uygulamaları sonrası hasta bakım yönetimini içermektedir. Ek olarak, cerrahi sonrası hızlandırılmış iyileşme ve palyatif dönem bakım seçenekleri de tartışıldı. Hemşireler, kurs öncesi bilgi düzeyini ve kurs sonrası 1. ayda bilgi düzeyini 1-5 puan arasında değerlendirdiler.

**Bulgular:** Kursa katılan hemşireler daha önceki tecrübe, eğitim seviyesi ve jinekolojik onkolojide çalışma durumlarından bağımsız olarak hastanenin tüm çalışma alanlarından gelmişti. Kursa ait dersler için, yapılan ön ve son test arasında bilgi durumunda istatistiksel olarak anlamlı bir artış mevcuttu ( $p<0.05$ ).

**Sonuç:** Hemşirelere özgü mezuniyet sonrası yapılandırılmış eğitim programlarına ihtiyaç vardır ve bu ihtiyaç odaklanmış çalıştaylar ile karşılanabilir.

**Anahtar kelimeler:** Hemşire; eğitim; jinekolojik onkoloji; çalıştay; cerrahi

## 1. Introduction

Gynecologic oncology is a structured discipline that aims to improve the well-being of women. Gynecologic oncology fellowship is a sub-speciality training after the residency of obstetrics and gynecology in which the surgical expertise covers the procedures of radical and reconstructive abdominal surgery, gastrointestinal, genitourinary and retroperitoneal surgery beyond the basic pelvic surgeries (1). Besides, during the clinical practice, administration of chemotherapy and management of side-effects are also included in the daily job of gynecological oncologists in many clinics.

Ovaries, fallopian tubes, uterus, cervix, vagina and vulva are the main potentially malignant sites that are practised in gynecologic oncology, however, due to the tumor burden, the area included inpatient care extends, like in patients with metastases to the abdominal structures, thorax or brain. The multi-disciplinary approach and collaboration of many disciplines (radiation oncology, medical oncology, surgery, radiology, pathology) let the nurses be an integral part of patient-based management in gynecologic oncology. Nurses assist each step of patient management during the daily hospital life from the diagnosis to the active management of illness (surgery, chemotherapy and radiotherapy) and follow-up; in that perspective, clinical nursing is the cornerstone of quality in patient care. Since the nurses prepare the patient to the procedures or provide primary care in the postoperative period, or frequently communicate with the patients; specialized nurses, educated in gynecologic oncology

nursing may provide comprehensive care at the inpatient and outpatient clinics (2).

The literature changes in years, so far, the concept of nurse-led assistive management should be improved through the updated scientific workshops (3). This study evaluates the pre-, and post-course educational level of nurses concerning an educational workshop focused on gynecologic oncology nursing.

## 2. Material and Method

In April 2018, at University of Health Sciences, Zekai Tahir Burak Woman's Health Education and Research Hospital, the workshop of 'Basic and Advanced Nursing Activities in Gynecologic Oncology' was held to improve the knowledge of nurses in the field of gynecologic oncology practice. A total of 33 nurses attended the workshop and gave informed consent for their participation. The local committee approved the study. The one-day workshop was based on theoretical lessons, video demonstrations and patient management discussions (Table 1). The lessons consisted of patient care before and after basic surgical procedures in gynecologic oncology; pelvic and paraaortic lymphadenectomy, radical hysterectomy, radical vulvectomy with inguinofemoral lymphadenectomy, with the additional patient care managements after bowel operations, stoma formation, chemotherapy administration, radiotherapy and brachytherapy applications. Additionally, enhanced recovery after the surgery and palliative care options were also discussed. Video demonstration of the surgical procedures and interactive discussions on the proper patient care methods were the critical points of the workshop.



**Table 1.** Program of the 'Basic and Advanced Nursing Activities in Gynecologic Oncology' Workshop

Pelvic and paraaortic lymphadenectomy procedure and patient care	15m
Radical hysterectomy procedure and patient care	15m
Vulvectomy and inguino-femoral lymphadenectomy procedure and patient care	15m
Stoma formation and bowel resection-anastomosis procedure and patient care	15m
Enhanced recovery after surgery in the perspective of nurses	15m
Chemotherapy administration and patient care	15m
Radiotherapy and brachytherapy applications and patient care	15m
Hospitalization and care of patients during the terminal period	15m
Palliative care and gynecologic oncology patients	15m
Proper nutrition choices for gynecologic oncology patients	15m
Psychological support for gynecologic oncology patients	15m
Menopause and symptom control for gynecologic oncology patients	15m

'm': minutes

The prepared pre-course and post-course questionnaires aimed to evaluate the knowledge of nurses about the topics of demonstrated surgical procedures and patient care modalities. Nurses scaled their pre-course knowledge ranging between 1 (minimum)-5 (maximum) points and the post-course knowledge at the end of the first month. The participated nurses evaluated the contribution of the workshop to their knowledge.

Statistical analyses were performed with SPSS software version 21 for Mac (SPSS, IL, Chicago). Demographic values were identified with proper analytical tests, and the Wilcoxon test

was used to compare the scores of pre and post-course test. A p-value <0.05 was set as the statistically significant result.

### 3. Results

A total of 33 nurses participated in the questionnaire. Attending nurses were from all servicing parts of the hospital irrespective of their previous experience, education level or employment in gynecologic oncology. Most of the nurses were working at the inpatient clinic (n=27, 81.8%), with a broad experience of more than 15 years (n=22, 66.7%) and an educational level of university degree (n=27, 81.8%) (Table 2).

**Table 2.** Demographic characteristics the nurses attended the workshop

Demographic characteristics (n=33)	Number (%)	
Range of age (years)	18-30	5 (15.1)
	31-40	7 (21.2)
	41-50	20 (60.6)
	51-65	1 (3.1)
Level of education	High-school	3 (9.1)
	University	27 (81.8)
	Post-graduate mastery	3 (9.1)
Years of experience (years)	<5 years	2 (6.1)
	5-10 years	2 (6.1)
	11-15 years	7 (21.2)
	>15 years	22 (66.7)
Active working service	Inpatient clinic	27 (81.8)
	Outpatient clinic	4 (12.1)
	Operating theatre	2 (6.1)
Previous attendance to a nurse education workshop	Yes	22 (66.6)
	No	11 (33.4)
Previous attendance to a nurse education workshop dedicated on gynecologic oncology	Yes	13 (39.4)
	No	20 (60.6)

The level of technical knowledge about the procedures and patient care methodologies for pelvic and paraaortic lymphadenectomy, radical hysterectomy, radical vulvectomy and inguinofemoral lymphadenectomy, bowel resection-

anastomosis and stoma formation were evaluated with a pre and post-test. There was a statistically significant improvement of knowledge in all aspects of the course ( $p < 0.05$ ) (**Table 3**).

**Table 3.** Pre-course, post-course test results (n=33)

	Pre-course		Post-course		p values
	Mean $\pm$ SD	Median	Mean $\pm$ SD	Median	
Knowledge level of pelvic and paraaortic lymphadenectomy procedure	2.97 $\pm$ 1.28	3.0	4.36 $\pm$ 0.96	5.0	<0.001*
Knowledge level of pelvic and paraaortic lymphadenectomy patient care	3.0 $\pm$ 1.14	3.0	4.52 $\pm$ 0.71	5.0	<0.001*
Knowledge level of radical hysterectomy procedure	3.33 $\pm$ 1.19	3.0	4.45 $\pm$ 0.75	5.0	<0.001*
Knowledge level of radical hysterectomy patient care	3.18 $\pm$ 1.10	3.0	4.55 $\pm$ 0.75	5.0	<0.001*
Knowledge level of vulvectomy and inguino-femoral lymphadenectomy procedure	2.88 $\pm$ 1.21	3.0	4.30 $\pm$ 0.98	5.0	<0.001*
Knowledge level of vulvectomy and inguino-femoral lymphadenectomy patient care	2.94 $\pm$ 1.17	3.0	4.45 $\pm$ 0.79	5.0	<0.001*
Knowledge level of stoma formation and bowel anastomosis procedure	2.97 $\pm$ 1.13	3.0	4.45 $\pm$ 0.83	5.0	<0.001*
Knowledge level of stoma formation and bowel anastomosis patient care	2.97 $\pm$ 1.04	3.0	4.45 $\pm$ 0.83	5.0	<0.001*

\*Statistically significant

#### 4. Discussion

Nurses represent the most critical assisting medical staff for the patient care, and with the advancing improvements in the field of medical sciences, it is clear that continuing education programs should be developed for the patient care providers. This study revealed that a well-organized educational workshop would improve the level of technical knowledge of nurses both for surgical and medical interventions and also for the patient care activities.

The reader should notice that the limited number of participants as a heterogeneous group and subjective grading of the measured topics were the shortcomings of this study. Therefore, an objective-criteria to evaluate the long-term results of improved knowledge and patient care management is needed.

The educational degree of nurses influences their vision and attitudes during working hours. The study conducted by Aiken et al. (4) revealed that the educational level of nurses is directly related to patient survival outcomes. A bachelor's degree of nurses will provide a significant survival advantage for patients, and this will enable more comprehensive care for the patients, especially in whom with complications. Within this background, this study also showed that the experience of nurses was less important than the educational degree; because there was a lack of scientific knowledge that the median pre-course knowledge degree was not higher than '3' over '5' points, which was not correlated with the experience. On the other hand, another critical issue to be emphasized for patient care is the patient to

nurse ratio; whenever the ratio gets higher, the survival period of patients decreases. Blegen et al. (5) found that the working period of nurses is also proportional to the adverse outcomes, and as the number of registered nurses increases, the rate of adverse outcomes decreases dramatically. Even though that the working climate is associated with adverse patient outcomes, maintaining highly educated nurses is one of the fundamentals of patient care (6). Nevertheless, this is not feasible all the time; in that condition, one of the government policies towards quality in patient care should be an integration of educational workshops into nurses' postgraduate curriculum.

Recently, cancer is one of the leading public health problems, and researches are focusing on not only curing the cancer but also on improving the quality of life. In this respect, providing high standards of care for the patients who are suffering from cancer will be achieved by dedicated educational programs and abandoning the gaps between the patients and care providers. Integration of cancer education programs to the nursing college curriculum had started from the early 1950s in the United States (3). Standard educational programs should be improved with continuous professional education to conquer the challenges those met while servicing. In this study, we found that 33.4% of nurses had never attended a post-graduate educational workshop. During this continuous professional education, the needs of the nurses should be well-observed before organizing a structured program. Because getting the right information about the courses, access to the courses, funding and support to adjust the working days while attending the course are the



main obstacles to overcome. Langton et al. (7) evaluated the deficiencies of oncology nurse education that the technical knowledge about cancer, palliative care nursing and the communication skills were the significant requests of nurses for post-graduate education. Within this context, a national framework program will ensure a core curriculum to maintain a competency level (8). In Turkey, a well-designed and structured palliative care nursing program exists; however, for the issues of surgery, chemotherapy and radiation therapy, there is a need for technical courses in the perspective of patient care methodologies. As far as our knowledge, this workshop was the first hospital-based course in Turkey that was held to improve the knowledge of nurses in the field of gynecologic oncology.

Those educational workshops maintain a high level of knowledge and improve the skills in the light of recent literature. Edwards et al. (9) evaluated the knowledge of nurse practitioners about the hereditary colorectal cancer with pre and post-course tests, and after the course, there was a significant improvement in the knowledge of nurses. By the way, the nurses got familiar with the syndrome and gained the skills to identify the patients who are at risk for hereditary colorectal cancers. Here, we also demonstrated similar results and obtained a significant improvement in the knowledge of nurses for gynecologic oncology. Furthermore, collaboration with nurses will also customize and facilitate patient management. After the implementation of an educational program on genetic cancer risk assessment, nurse practitioners successfully managed risk assessment, triage and coordination (10). The perspective of Enhanced Recovery After Surgery (ERAS) improves postoperative patient outcomes at inpatient clinics. However, this could be achieved by a team play, and the nurses are the complementary part of this approach. The study by Wickenbergh et al. (11) showed that educational programs for the nursing staff regarding the ERAS protocols improved adherence with the ERAS principles. It should be kept in mind that special courses should be designed for nurses to improve their communication skills, so to obtain the right level harmony with the patients.

In most of the countries, nurses get a comprehensive education both theoretically and practically. However, some issues need to be improved by particular tasks. Since nurses have close contact with patients and follow their situations, especially in the inpatient wards; specific courses in the field of oncology dedicated on pain management, psychosocial care and communication will achieve the collaboration in the triangle of patient, nurse and doctor (12). While considering those parameters, the balance between the workload of nurses and nurse per patient ratio must always be preserved (13).

In conclusion, a structured post-graduate educational program which will be achieved by dedicated workshops may improve the knowledge and skills of nurses, achieve the collaboration between the nurses, doctors and patients, and consequently facilitate the patient care.

### Declaration of Interest

The authors report no conflicts of interest.

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